

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>CD - 105 - PCT</b>	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. <b>PCT/EP2004/053030</b>	International filing date (day/month/year) <b>19/11/2004</b>	(Earliest) Priority Date (day/month/year) <b>19/11/2003</b>
Applicant <b>CROPDESIGN N.V.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 8 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☒ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☒ Certain claims were found unsearchable (See Box II).

3. ☒ Unity of invention is lacking (see Box III).

4. With regard to the title,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

**"SEEDY1" NUCEIC ACIDS FOR MAKING PLANTS HAVING CHANGED GROWTH CHARACTERISTICS**

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

- a. the figure of the drawings to be published with the abstract is Figure No. \_\_\_\_\_

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☒ none of the figures is to be published with the abstract.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP2004/053030

## Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of item 1.b of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of:
  - a. type of material
    - ☒ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material
    - ☒ in written format
    - ☒ in computer readable form
  - c. time of filing/furnishing
    - ☐ contained in the international application as filed
    - ☐ filed together with the international application in computer readable form
    - ☒ furnished subsequently to this Authority for the purpose of search
2. ☒ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
3. Additional comments:

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP2004/053030

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
**see FURTHER INFORMATION sheet PCT/ISA/210**
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

**see additional sheet**

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  
**1-25 (all partially)**

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.1

Claim 20 in its present wording is not clear and might at least partially refer to essentially biological process for the production of plants, which are excluded from patentability according to Rule 39.1(ii) PCT.

Consequently present claim 20 has only insofar been considered, as it relates to microbiological processes involving the heterologous expression of a seedyl nucleic acid.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-25 (all partially)

Method for modifying the growth characteristics of a plant involving a seedyl nucleic acid as defined by SEQ ID NO:1; plants or plant cells obtainable by said methods; methods for producing transgenic plants, transgenic plants and parts thereof involving a seedyl nucleic acid as defined by SEQ ID NO:1; uses of a seedyl nucleic acid as defined by SEQ ID NO:1; an isolated seedyl protein according to SEQ ID NO:2 and an isolated a seedyl nucleic acid as defined by SEQ ID NO:1.

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2. claims: 1-25 (all partially)

Method for modifying the growth characteristics of a plant involving a seedyl nucleic acid encoding an amino acid as defined by SEQ ID NO:4; plants or plant cells obtainable by said methods; methods for producing transgenic plants, transgenic plants and parts thereof involving a seedyl nucleic acid encoding an amino acid as defined by SEQ ID NO:4; uses of a seedyl nucleic acid encoding an amino acid as defined by SEQ ID NO:4; an isolated seedyl protein according to SEQ ID NO:4 and an isolated a seedyl nucleic acid encoding an amino acid as defined by SEQ ID NO:4.

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3. claims: 1-25 (all partially)

Method for modifying the growth characteristics of a plant involving a seedyl nucleic acid as defined by SEQ ID NO:5; plants or plant cells obtainable by said methods; methods for producing transgenic plants, transgenic plants and parts thereof involving a seedyl nucleic acid as defined by SEQ ID NO:5; uses of a seedyl nucleic acid as defined by SEQ ID NO:5; an isolated seedyl protein according to SEQ ID NO:6 and an isolated a seedyl nucleic acid as defined by SEQ ID NO:5.

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4. claims: 1-25 (all partially)

Method for modifying the growth characteristics of a plant involving a seedyl nucleic acid as defined by SEQ ID NO:7; plants or plant cells obtainable by said methods; methods for producing transgenic plants, transgenic plants and parts thereof involving a seedyl nucleic acid as defined by SEQ ID NO:7; uses of a seedyl nucleic acid as defined by SEQ ID NO:7; an isolated seedyl protein according to SEQ ID NO:8 and an isolated a seedyl nucleic acid as defined by SEQ ID NO:7.

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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

## 5. claims: 1-25 (all partially)

Method for modifying the growth characteristics of a plant involving a seedy1 nucleic acid encoding an amino acid as defined by SEQ ID NO:10; plants or plant cells obtainable by said methods; methods for producing transgenic plants, transgenic plants and parts thereof involving a seedy1 nucleic acid encoding an amino acid as defined by SEQ ID NO:10; uses of a seedy1 nucleic acid encoding an amino acid as defined by SEQ ID NO:10; an isolated seedy1 protein according to SEQ ID NO:10 and an isolated a seedy1 nucleic acid encoding an amino acid as defined by SEQ ID NO:10.

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## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07K14/415 C12N15/82 C12N15/29

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07K C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, EMBASE, BIOSIS, Sequence Search, EMBL

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 03/085115 A (CROPDESIGN N V (BE)) 16 October 2003 (2003-10-16) SEQ ID NO:82	1-25
A	----- DATABASE EMBL 26 April 2003 (2003-04-26), CHEUK R. ET AL.: "Arabidopsis thaliana At4g28230 gene, complete cds." XP002285859 Database accession no. BT006466 This sequence was also published under the accession number AL161572 by EMBL. abstract	21-25
P,X	----- WO 2004/035798 A (CROPDESIGN N V (BE)) 29 April 2004 (2004-04-29) SEQ ID NO:1977 page 1, line 7 - line 16 page 15, line 8 - page 16, line 2 -----	1-25



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

## \* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&amp;" document member of the same patent family

Date of the actual completion of the international search

4 July 2005

Date of mailing of the international search report

16 08. 2005

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Authorized officer

Schönwasser, D

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/053030

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 03085115	A	16-10-2003	AU 2003224056 A1	20-10-2003
			CA 2482145 A1	16-10-2003
			WO 03085115 A2	16-10-2003
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WO 2004035798	A	29-04-2004	AU 2003298095 A1	04-05-2004
			WO 2004035798 A2	29-04-2004
			EP 1551983 A2	13-07-2005
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